6560-50-P

#### ENVIRONMENTAL PROTECTION AGENCY

#### 40 CFR Part 52

[EPA-R04-OAR-2020-0428; FRL-8911-01-R4]

Air Plan Approval; TN; Montgomery County Limited Maintenance Plan for the 1997 8-Hour Ozone NAAQS

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a state implementation plan (SIP) revision submitted by the State of Tennessee, through the Tennessee Department of Environment and Conservation (TDEC), Air Pollution Control Division, on June 23, 2020. The SIP revision includes the 1997 8-hour ozone national ambient air quality standards (NAAQS) Limited Maintenance Plan (LMP) for the Montgomery County, Tennessee portion of the Clarksville-Hopkinsville Area (hereinafter referred to as the "Montgomery County Area" or "Area"). The Clarksville-Hopkinsville Area is comprised of Montgomery County, Tennessee, and Christian County, Kentucky. EPA is proposing to approve Tennessee's LMP for the Montgomery County Area because it provides for the maintenance of the 1997 8-hour ozone NAAQS within the Montgomery County Area through the end of the second 10-year portion of the maintenance period. The effect of this action would be to make certain commitments related to maintenance of the 1997 8-hour ozone NAAQS in the Montgomery County Area federally enforceable as part of the Tennessee SIP.

DATES: Comments must be received on or before [Insert date 30 days after date of publication in the Federal Register].

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R04-OAR-2020-0428 at http://www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may

publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

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### I. Summary of EPA's Proposed Action

In accordance with the Clean Air Act (CAA or Act), EPA is proposing to approve the Montgomery County Area LMP for the 1997 8-hour ozone NAAQS, adopted by TDEC on June 10, 2020, and submitted by TDEC as a revision to the Tennessee SIP on June 23, 2020. In 2004,

the Montgomery County Area was designated as nonattainment for the 1997 8-hour ozone NAAQS. Subsequently, in 2005, after having clean data and EPA's approval of a maintenance plan, the Area was redesignated to attainment for the 1997 8-hour ozone NAAQS. *See* 70 FR 55559 (September 22, 2005).

The Montgomery County Area LMP, submitted by TDEC on June 23, 2020, is designed to maintain the 1997 8-hour ozone NAAQS within the Montgomery County Area through the end of the second 10-year portion of the maintenance period beyond redesignation. EPA is proposing to approve the plan because it meets all applicable requirements under CAA sections 110 and 175A.

As a general matter, the Montgomery County Area LMP relies on the same control measures and contingency provisions to maintain the 1997 8-hour ozone NAAQS during the second 10-year portion of the maintenance period as the maintenance plan submitted by TDEC for the first 10-year period.

## II. Background

Ground-level ozone is formed when oxides of nitrogen (NOx) and volatile organic compounds (VOC) react in the presence of sunlight. These two pollutants, referred to as ozone precursors, are emitted by many types of pollution sources, including on- and off-road motor vehicles and engines, power plants and industrial facilities, and smaller area sources such as lawn and garden equipment and paints. Scientific evidence indicates that adverse public health effects occur following exposure to ozone, particularly in children and in adults with lung disease.

Breathing air containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma and other lung diseases.

Ozone exposure also has been associated with increased susceptibility to respiratory infections, medication use, doctor visits, and emergency department visits and hospital admissions for individuals with lung disease. Children are at increased risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors,

which increases their exposure.<sup>1</sup>

In 1979, under section 109 of the CAA, EPA established primary and secondary NAAQS for ozone at 0.12 parts per million (ppm), averaged over a 1-hour period. *See* 44 FR 8202 (February 8, 1979). On July 18, 1997, EPA revised the primary and secondary NAAQS for ozone to set the acceptable level of ozone in the ambient air at 0.08 ppm, averaged over an 8-hour period. *See* 62 FR 38856 (July 18, 1997).<sup>2</sup> EPA set the 8-hour ozone NAAQS based on scientific evidence demonstrating that ozone causes adverse health effects at lower concentrations and over longer periods of time than was understood when the pre-existing 1-hour ozone NAAQS was set. EPA determined that the 8-hour NAAQS would be more protective of human health, especially children and adults who are active outdoors, and individuals with a pre-existing respiratory disease, such as asthma.

Following promulgation of a new or revised NAAQS, EPA is required by the CAA to designate areas throughout the nation as attaining or not attaining the NAAQS. On April 15, 2004, EPA designated the Clarksville-Hopkinsville Area, which included Montgomery County, Tennessee, and Christian County, Kentucky, as nonattainment for the 1997 8-hour ozone NAAQS, and the designation became effective on June 15, 2004. *See* 69 FR 23858 (April 30, 2004). Similarly, on May 21, 2012, EPA designated areas as unclassifiable/attainment or nonattainment for the 2008 8-hour ozone NAAQS. EPA designated Montgomery County as unclassifiable/attainment for the 2008 8-hour ozone NAAQS. This designation became effective on July 20, 2012. *See* 77 FR 30088 (May 21, 2012). In addition, on November 16, 2017, areas were designated for the 2015 8-hour ozone NAAQS. The Montgomery County Area was designated attainment/unclassifiable for the 2015 8-hour ozone NAAQS, with an effective date of January 16, 2018. *See* 82 FR 54232 (November 16, 2017).

<sup>&</sup>lt;sup>1</sup> See "Fact Sheet, Proposal to Revise the National Ambient Air Quality Standards for Ozone," January 6, 2010 and 27 FR 2938 (January 19, 2010).

<sup>&</sup>lt;sup>2</sup> In March 2008, EPA completed another review of the primary and secondary ozone NAAQS and tightened them further by lowering the level for both to 0.075 ppm. *See* 73 FR 16436 (March 27, 2008). Additionally, in October 2015, EPA completed a review of the primary and secondary ozone NAAQS and tightened them by lowering the level for both to 0.070 ppm. *See* 80 FR 65292 (October 26, 2015).

A state may submit a request to redesignate a nonattainment area that is attaining a NAAQS to attainment, and, if the area has met other required criteria described in section 107(d)(3)(E) of the CAA, EPA may approve the redesignation request.<sup>3</sup> One of the criteria for redesignation is to have an approved maintenance plan under CAA section 175A. The maintenance plan must demonstrate that the area will continue to maintain the NAAQS for the period extending ten years after redesignation, and it must contain such additional measures as necessary to ensure maintenance and such contingency provisions as necessary to assure that violations of the NAAQS will be promptly corrected. Eight years after the effective date of redesignation, the state must also submit a second maintenance plan to ensure ongoing maintenance of the NAAQS for an additional ten years pursuant to CAA section 175A(b) (i.e., ensuring maintenance for 20 years after redesignation).

EPA has published long-standing guidance for states on developing maintenance plans.<sup>4</sup> The Calcagni memo provides that states may generally demonstrate maintenance by either performing air quality modeling to show that the future mix of sources and emission rates will not cause a violation of the NAAQS or by showing that projected future emissions of a pollutant and its precursors will not exceed the level of emissions during a year when the area was attaining the NAAQS (i.e., attainment year inventory). *See* Calcagni memo at page 9. EPA clarified in three subsequent guidance memos that certain areas could meet the CAA section 175A requirement to provide for maintenance by showing that the area was unlikely to violate the NAAQS in the future, using information such as the area's design value<sup>5</sup> being significantly

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<sup>&</sup>lt;sup>3</sup> Section 107(d)(3)(E) of the CAA sets out the requirements for redesignating a nonattainment area to attainment. They include attainment of the NAAQS, full approval of the applicable SIP pursuant to CAA section 110(k), determination that improvement in air quality is a result of permanent and enforceable reductions in emissions, demonstration that the state has met all applicable section 110 and part D requirements, and a fully approved maintenance plan under CAA section 175A.

<sup>&</sup>lt;sup>4</sup> John Calcagni, Director, Air Quality Management Division, EPA Office of Air Quality Planning and Standards (OAQPS), "Procedures for Processing Requests to Redesignate Areas to Attainment," September 4, 1992 (Calcagni memo).

<sup>&</sup>lt;sup>5</sup> The ozone design value for a monitoring site is the 3-year average of the annual fourth-highest daily maximum 8-hour average ozone concentrations. The design value for an ozone area is the highest design value of any monitoring site in the area.

below the standard and the area having a historically stable design value.<sup>6</sup> EPA refers to a maintenance plan containing this streamlined demonstration as an LMP.

EPA has interpreted CAA section 175A as permitting the LMP option because section 175A of the Act does not define how areas may demonstrate maintenance, and in EPA's experience implementing the various NAAQS, areas that qualify for an LMP and have approved LMPs have rarely, if ever, experienced subsequent violations of the NAAQS. As noted in the LMP guidance memoranda, states seeking an LMP must still submit the other maintenance plan elements outlined in the Calcagni memo, including: an attainment emissions inventory, provisions for the continued operation of the ambient air quality monitoring network, verification of continued attainment, and a contingency plan in the event of a future violation of the NAAQS. Moreover, a state seeking an LMP must still submit its section 175A maintenance plan as a revision to its SIP, with all attendant notice and comment procedures. While the LMP guidance memoranda were originally written with respect to certain NAAQS, EPA has extended the LMP interpretation of section 175A to other NAAQS and pollutants not specifically covered by the previous guidance memos.<sup>8</sup>

In this case, EPA is proposing to approve Tennessee's LMP because the State has made a showing, consistent with EPA's prior LMP guidance, that the Clarksville-Hopkinsville Area's ozone concentrations are well below the 1997 8-hour ozone NAAQS and have been historically stable and that it has met the other maintenance plan requirements. TDEC submitted this LMP for the Montgomery County Area to fulfill the second maintenance plan requirement in the Act. EPA's evaluation of the Montgomery County Area's LMP is presented below.

<sup>6</sup> See "Limited Maintenance Plan Option for Nonclassifiable Ozone Nonattainment Areas," from Sally L. Shaver, OAQPS, November 16, 1994; "Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas," from Joseph Paisie, OAQPS, October 6, 1995; and "Limited Maintenance Plan Option for Moderate PM<sub>10</sub>

Nonattainment Areas," from Lydia Wegman, OAQPS, August 9, 2001. Copies of these guidance memoranda can be found in the docket for this proposed rulemaking.

<sup>&</sup>lt;sup>7</sup> The prior memos addressed: unclassifiable areas under the 1-hour ozone NAAQS, nonattainment areas for the PM<sub>10</sub> (particulate matter with an aerodynamic diameter less than 10 microns) NAAQS, and nonattainment for the carbon monoxide (CO) NAAQS.

 $<sup>^8</sup>$  See, e.g., 79 FR 41900 (July 18, 2014) (approval of the second ten-year LMP for the Grant County 1971 SO<sub>2</sub> maintenance area).

In August of 2005, TDEC submitted to EPA a request to redesignate the Montgomery County Area to attainment for the 1997 8-hour ozone NAAQS. This submittal included a plan to provide for maintenance of the 1997 8-hour ozone NAAQS in Montgomery County through 2016 as a revision to the Tennessee SIP. EPA approved the Montgomery County Area's Maintenance Plan and the State's request to redesignate the Montgomery County Area to attainment for the 1997 8-hour ozone NAAQS, effective November 21, 2005. *See* 70 FR 55559 (September 22, 2005).

Under CAA section 175A(b), states must submit a revision to the first maintenance plan eight years after redesignation to provide for maintenance of the NAAQS for ten additional years following the end of the first 10-year period. EPA's final implementation rule for the 2008 8-hour ozone NAAQS revoked the 1997 8-hour ozone NAAQS and stated that one consequence of revocation was that areas that had been redesignated to attainment (i.e., maintenance areas) for the 1997 NAAQS no longer needed to submit second 10-year maintenance plans under CAA section 175A(b). *See* 80 FR 12264, 12315 (March 6, 2015).

In South Coast Air Quality Management District v. EPA, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated the EPA's interpretation that, because of the revocation of the 1997 8-hour ozone NAAQS, second maintenance plans were not required for "orphan maintenance areas," i.e., areas that had been redesignated to attainment for the 1997 8-hour ozone NAAQS maintenance areas and were designated attainment for the 2008 ozone NAAQS. South Coast, 882 F.3d 1138 (D.C. Cir. 2018). Thus, states with these "orphan maintenance areas" under the 1997 8-hour ozone NAAQS must submit maintenance plans for the second maintenance period. Accordingly, on June 23, 2020, Tennessee submitted a second maintenance plan for the Montgomery County Area that shows that the Area is expected to remain in attainment of the 1997 8-hour ozone NAAQS through 2025.

In recognition of the continuing record of air quality monitoring data showing ambient 8-hour ozone concentrations in the Clarksville-Hopkinsville Area well below the 1997 8-hour

ozone NAAQS, TDEC chose the LMP option for the development of a second 1997 8-hour ozone NAAQS maintenance plan. On June 10, 2020, TDEC adopted the second 10-year 1997 8-hour ozone maintenance plan, and on June 23, 2020, TDEC submitted the Montgomery County Area LMP to EPA as a revision to the Tennessee SIP.

### III. Tennessee's SIP Submittal

As mentioned above, on June 23, 2020, TDEC submitted the Montgomery County Area 1997 8-Hour Ozone NAAQS LMP to EPA as a revision to the Tennessee SIP. The submittal includes the LMP, air quality data, emissions inventory information, and appendices, as well as certification of adoption of the plan by TDEC. Appendices to the plan include comments and responses between EPA and TDEC; documentation of notice, hearing, and public participation prior to adoption of the plan by the TDEC on June 10, 2020; interagency consultation; and Air Pollution Control Board order, which notes that Tennessee's LMP submittal for the remainder of the 20-year maintenance period for the for the Montgomery County Area is in response to the D.C. Circuit's decision overturning aspects of EPA's implementation rule for the 2008 8-hour ozone NAAQS. The Montgomery County Area LMP does not include any additional emissions reduction measures but relies on the same emission reduction strategy as the first 10-year Maintenance Plan that provides for maintenance of the 1997 ozone NAAQS through 2016. The measures upon which the second 10-year LMP for the Montgomery County Area relies include the SIP-approved version of Tennessee Air Pollution Control Regulation 1200-03-27-.12, NO<sub>X</sub> SIP Call Requirements for Stationary Boilers and Combustion Turbines, which established a state control program for sources that are subject to the NO<sub>x</sub> SIP Call but not covered under Cross State Air Pollution Rule (CSAPR).9 The LMP also relies on continued implementation of federal measures (e.g., interstate transport rules such as CSAPR, see 76 FR 48208 (August 8, 2011), and the CSAPR Update, see 81 FR 74504 (October 26, 2016)).

#### IV. EPA's Evaluation of Tennessee's SIP Submittal

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<sup>&</sup>lt;sup>9</sup> See 86 FR 12092 (March 2, 2021).

EPA has reviewed the Montgomery County Area's LMP which is designed to maintain the 1997 8-hour ozone NAAQS within Montgomery County through the end of the 20-year period beyond redesignation, as required under CAA section 175A(b). The following is a summary of EPA's interpretation of the section 175A requirements<sup>10</sup> and EPA's evaluation of how each requirement is met.

# A. Attainment Emissions Inventory

For maintenance plans, a state should develop a comprehensive, accurate inventory of actual emissions for an attainment year to identify the level of emissions which is sufficient to maintain the NAAQS. A state should develop this inventory consistent with EPA's most recent guidance on emissions inventory development. For ozone, the inventory should be based on typical summer day emissions of VOCs and NOx, as these pollutants are precursors to ozone formation. The Montgomery County Area LMP includes an ozone attainment inventory for Montgomery County that reflects typical summer day emissions in 2014. Table 1 presents a summary of the inventory for 2014 contained in the LMP.

TABLE 1—2014 Typical Summer Day 8-Hour Ozone Emissions for the Montgomery County Area (tons/summer day)

Source Category	VOC Emissions	NO <sub>X</sub> Emissions
Fire	0.00*	0.00*
Nonpoint	8.79	0.90
Nonroad	1.58	1.35
Onroad	4.76	7.64
Point	0.97	0.50
Total	16.10*	10.39

<sup>\*</sup> This Total VOC Emissions value differs from Tennessee's submittal and has been re-calculated by TDEC to accurately reflect the total VOC emissions for Montgomery County.<sup>11</sup>

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<sup>&</sup>lt;sup>10</sup> See Calcagni memo.

<sup>&</sup>lt;sup>11</sup> See email from James Johnston, TDEC, to Lynorae Benjamin, EPA Region 4, on December 15, 2020, available in the docket for this proposed rulemaking.

The Emissions Inventory section of the Montgomery County Area's LMP describes the methods, models, and assumptions used to develop the attainment inventory. As described in the Emissions Inventory section of the LMP, TDEC generally relied upon emissions inventory information from the EPA 2014 version 7.0 air quality modeling platform (2014v7.0 platform), which is based on the 2014 NEI. The emissions data in the 2014v7.0 platform are primarily based on the 2014NEIv1 for point sources, nonpoint sources, commercial marine vessels (CMV), onroad and nonroad mobile sources, and fires. This 2014 modeling platform includes all criteria air pollutants (CAPs) and precursors and two groups of hazardous air pollutants (HAPs).

Nonroad mobile source emissions in the 2014NEIv1, in part, were estimated using the latest version of the EPA's motor vehicle emissions model, MOVES 2014a (which includes estimates of nonroad emissions like agriculture, commercial and mining, industrial and recreational equipment, and commercial and residential lawn and garden equipment).

Locomotives, aircraft, and marine nonroad sources are not included in MOVES, and TDEC relied on EPA-generated emissions for these sectors. <sup>12</sup> Onroad mobile sources in the 2014NEIv1 were estimated using MOVES 2014a and the latest planning assumptions regarding vehicle type, activity, and vehicle speeds to estimate vehicular emissions for 2014. MOVES2014a was used with inputs, where provided, by state and local agencies, in combination with EPA-generated default data. In its entirety, the 2014v7.0 platform's set of estimates for vehicles reflects emissions inventories and ancillary data files used for emissions modeling, as well as the meteorological, initial condition, and boundary condition files needed to run the air quality model.

# B. Maintenance Demonstration

The maintenance demonstration requirement is considered to be satisfied in an LMP if the state can provide sufficient weight of evidence indicating that air quality in the area is well

<sup>12</sup> EPA developed emissions for these sectors based on AP-42 emissions factor, and information supplied by the Eastern Regional Technical Advisory Committee for locomotives and Federal Aviation Administration's Emissions and Dispersion Modeling System (since replaced by the Aviation Environmental Design Tool).

below the level of the NAAQS, that past air quality trends have been shown to be stable, and that the probability of the area experiencing a violation over the second 10-year maintenance period is low.<sup>13</sup> These criteria are evaluated below with regard to the Clarksville-Hopkinsville Area as a whole.

#### 1. Evaluation of ozone air quality levels

To attain the 1997 8-hour ozone NAAQS, the three-year average of the fourth-highest daily maximum 8-hour average ozone concentrations (design value) at each monitor within an area must not exceed 0.08 ppm. Based on the rounding convention described in 40 CFR part 50, Appendix I, the NAAQS is attained if the design value is 0.084 ppm or below. There is currently one monitor measuring ozone, located within Christian County, Kentucky, which provides air quality data for the entire Clarksville-Hopkinsville Area. At the time of submission, EPA evaluated quality assured and certified 2016–2018 monitoring data<sup>14</sup> and determined that the design value for the Clarksville-Hopkinsville Area was 0.060 ppm, or 71 percent of the level of the 1997 8-hour ozone NAAOS. Based on quality assured and certified monitoring data for 2018–2020, 15 the current design value for the Clarksville-Hopkinsville Area is 0.058 ppm, or 69 percent of the level of the 1997 8-hour ozone NAAQS. Consistent with prior guidance, EPA believes that if the most recent air quality design value for the area is at a level that is well below the NAAOS (e.g., below 85 percent of the NAAOS, or in this case, below 0.071 ppm), then EPA considers the state to have met the section 175A requirement for a demonstration that the area will maintain the NAAQS for the requisite period. Such a demonstration assumes continued applicability of prevention of significant deterioration requirements and any control measures already in the SIP and that Federal measures will remain in place through the end of the second

<sup>&</sup>lt;sup>13</sup> See footnote 4.

<sup>&</sup>lt;sup>14</sup> See the spreadsheet titled "Ozone Design Values, 2018 (XLXS)" at https://www.epa.gov/air-trends/air-quality-design-values#report.

<sup>&</sup>lt;sup>15</sup> See the spreadsheet titled "Ozone Design Values, 2020 (XLXS)" at https://www.epa.gov/air-trends/air-quality-design-values#report.

10-year maintenance period, absent a showing consistent with section 110(l) that such measures are not necessary to assure maintenance.

Tables 2a and 2b present the design values for the Clarksville-Hopkinsville Area over the 2007–2020 period. As shown in Tables 2a and 2b, the Hopkinsville monitor has been well below the level of the 1997 8-hour ozone NAAQS since the Area was redesignated to attainment, and the most current design value is below the level of 85 percent of the NAAQS, consistent with prior LMP guidance.

Table 2a—1997 8-Hour Ozone NAAQS Design Values (ppm) at the Monitoring Site in the Clarksville-Hopkinsville, TN-KY Area for the 2007–2013 Time Period

Location	County	State	AQS	2005- 2007	2006- 2008	2007- 2009	2008- 2010	2009- 2011	2010- 2012	2011- 2013
			Site ID	DV	DV	DV	DV	DV	DV	DV
Hopkinsville	Christian	KY	21-047-	0.081	0.078	0.074*	0.069	0.070	0.073	0.069
			0006							
Table 2h	1007 O T	I a v v v O	NIA	A OC D	• 🔻 7	1 (	<u> </u>	1 3/	•, •	G.1
Table 2b -	- 1997 <b>0-</b> E	iour O	zone NAA	AQS DE	esign va	aiues (p	pm) at 1	the Moi	nitorinį	g Site
				_	_	\ <b>_</b> .	. ,		•	_
	Clarksvill County			_	_	\ <b>_</b> .	. ,		•	_
in the	Clarksvill	le-Hopl	kinsville,	TN-KY 2012-	Z Area 1 2013-	for the 2 2014-	2015-	20 Tim 2016-	e Perio 2017-	2018-
in the	Clarksvill	le-Hopl	AQS	TN-KY 2012- 2014	Z Area 1 2013- 2015	for the 2 2014- 2016	014–20 2015- 2017	20 Tim 2016- 2018	e Perio 2017- 2019	2018- 2020

<sup>\*</sup> The Hopkinsville, KY site (AQS ID: 21-047-0006) was operated by the Tennessee Valley Authority (TVA) until 2008. In 2008, the Kentucky Division for Air Quality began operation of an ozone monitor at the site (designated in AQS as Parameter Occurrence Code (POC) 2), and TVA discontinued operation of its POC 1 ozone monitor at the end of 2008. Both monitors met completeness requirements for the years that they operated during 2007–2009. AQS does not combine data from different POCs when calculating a design value for the 1997 Ozone NAAQS. However, to accurately present the data in the Table, a 2007–2009 design value was calculated using the combined datasets from the TVA and KY monitors. In 2008, when both monitors collected complete data, the KY monitor data was used because it is flagged as certified in AQS, while the 2008 TVA data is not. The combined 2007–2009 DV using 2007 data from the TVA monitor and 2008–2009 data from the KY monitor is 74 parts per billion and is shown in the Table.

Therefore, the Montgomery County Area is eligible for the LMP option, and EPA proposes to find that the long record of monitored ozone concentrations that attain the NAAQS, together with the continuation of existing VOC and NOx emissions control programs, adequately provide for the maintenance of the 1997 8-hour ozone NAAQS in Montgomery County through the second 10-year maintenance period and beyond.

Additional supporting information that the Area is expected to continue to maintain the NAAQS can be found in projections of future year design values that EPA recently completed to assist states with development of interstate transport SIPs for the 2015 ozone NAAQS.<sup>16</sup> Those projections, made for the year 2023, show that the highest design value in the Clarksville-Hopkinsville Area is expected to be 0.056 ppm.

## 2. Stability of Ozone Levels

As discussed above, the Montgomery County Area has maintained air quality well below the 1997 8-hour ozone NAAQS over the past thirteen years. Additionally, the design value data shown within Tables 2a and 2b illustrates that ozone levels have been relatively stable over this timeframe, with an overall downward trend. For example, the data within Tables 2a and 2b indicates that the largest year over year change in design value at any one monitor during these thirteen years was five parts per billion which occurred between the 2007–2009 design value and the 2008–2010 design value, and it represented only a six percent change. Furthermore, the overall trend in design values for the Clarksville-Hopkinsville Area between 2007–2020 shows a decrease of 23 parts per billion at the Hopkinsville monitor (AQS Site ID 21-047-0006). This downward trend in ozone levels, coupled with the relatively small, year-over-year variation in ozone design values, makes it reasonable to conclude that Montgomery County Area will not exceed the 1997 8-hour ozone NAAQS during the second 10-year maintenance period.

# 3. Projected Emissions

Although under the LMP option there is no requirement to project emissions over the maintenance period, TDEC included an analysis of ozone precursor emissions trends expected over the course of the second 10-year maintenance period. TDEC provided a VOC and NOx

<sup>16</sup> See the spreadsheet titled "Ozone Monitoring Site Design Values for 2008 through 2017 and for 2023" at https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naags.

emissions trends analysis from 2014 to 2028. Tennessee selected 2014 as a baseline for the projection because that is the most recent year for which a complete set of data was available from EPA's National Emissions Inventory (NEI) database at the time the State developed its second maintenance plan for the Area.<sup>17</sup> Projected emissions data for the year 2028 were obtained from EPA,<sup>18</sup> and these data represent EPA emissions projections that are available for a date furthest out into the future.<sup>19</sup> The emissions projection trends show that between 2014 and 2028, VOC emissions are estimated to fall by approximately 43 percent, and NOx emissions are estimated to fall by approximately 56 percent within the Montgomery County Area. These projected declining emissions trends further support the conclusion that it is unlikely that the Area would violate the 1997 8-hour ozone NAAQS in the future. Table 3 presents a summary of projected emissions for 2028 contained in the maintenance plan.

TABLE 3—2028 Typical Summer Day 8-Hour Ozone Emissions for the Montgomery County Area (tons/day)

Source Category	VOC Emissions	NOx Emissions
Fire	0.58	0.02
Nonpoint	5.31	1.36
Nonroad	1.12	0.67
Onroad	1.43	2.15
Point	0.73	0.31
Total	9.17	4.51

## C. Monitoring Network and Verification of Continued Attainment

EPA periodically reviews the ozone monitoring network that the Commonwealth of Kentucky operates and maintains in Christian County, in accordance with 40 CFR part 58. This

<sup>&</sup>lt;sup>17</sup> The 2017 NEI is the most recent NEI, but it was unavailable to Tennessee when the State developed its SIP revision.

 $<sup>^{18}</sup>$  The projected emissions data is available at https://www.epa.gov/air-emissions-modeling/2014-2016-version-7-air-emissions-modeling-platforms.

<sup>&</sup>lt;sup>19</sup> EPA's emissions projections to 2028 were made from the 2011 NEI, as that iteration of the NEI was the most recently available version when the projection work was performed.

network plan, which is submitted annually to EPA, is consistent with the ambient air monitoring network assessment. The annual network plan developed by the Kentucky Division for Air Quality (KDAQ) follows a public notification and review process. EPA has reviewed and approved the 2020 Ambient Air Monitoring Network Plan ("2020 Annual Network Plan").<sup>20</sup>

To verify the attainment status of the area over the maintenance period, the maintenance plan should contain provisions for continued operation of an appropriate, EPA-approved monitoring network in accordance with 40 CFR part 58. As noted above, KDAQ's monitoring network in the Clarksville-Hopkinsville Area has been approved by EPA in accordance with 40 CFR part 58, and Kentucky committed, in its SIP-approved maintenance plan, 21 to continue to maintain a network in accordance with EPA requirements. TDEC supports continued ozone monitoring by KDAQ. EPA proposes to find that KDAQ's monitoring network is adequate to verify continued attainment of the 1997 8-hour ozone NAAQS in the Montgomery County Area.

#### D. Contingency Plan

Section 175A(d) of the Act requires that a maintenance plan include contingency provisions. The purpose of such contingency provisions is to prevent future violations of the NAAQS or to promptly remedy any NAAQS violations that might occur during the maintenance period. These contingency measures are required to be implemented expeditiously once they are triggered by a future violation of the NAAOS or some other trigger. The state should identify specific triggers which will be used to determine when the contingency measures need to be implemented.

The LMP states that the trigger is a Quality Assured/Quality Controlled (QA/QC) violating design value of the 1997 8-hour ozone NAAOS in the Clarksville-Hopkinsville Area.<sup>22</sup>

<sup>&</sup>lt;sup>20</sup> Kentucky's network plan is available at

https://www.tn.gov/content/dam/tn/environment/air/documents/apcairqualitymonitoring/2020%20Tennessee%20An nual%20Monitoring%20Network%20Plan%20-%20Comment%20Update.pdf.

<sup>&</sup>lt;sup>21</sup> See 71 FR 4047 (January 25, 2006).

<sup>&</sup>lt;sup>22</sup> If QA/QC data indicates a violating design value for the 8-hour ozone NAAQS, then the triggering event will be the date of the design value violation, and not the final QA/QC date. However, if initial monitoring data indicates a possible design value violation but later OA/OC indicates that a NAAOS violation did not occur, then a triggering event will not have occurred, and contingency measures will not need to be implemented.

If this trigger is activated, the maintenance plan requires Tennessee to conduct a study to determine the cause of the higher ozone value, whether from an event not likely to recur or from an increasing trend in emissions that threatens the continued maintenance of the NAAQS.

Tennessee will adopt and implement appropriate contingency measures tailored to the source of the violation (or increased concentrations) as expeditiously as practicable, but no later than 18 to 24 months after the trigger event.<sup>23</sup>

EPA proposes to find that the contingency provisions in Tennessee's second maintenance plan for the 1997 8-hour Ozone NAAQS meet the requirements of the CAA section 175A(d).

### E. Conclusion

EPA proposes to find that the Montgomery County Area LMP for the 1997 8-hour ozone NAAQS includes an approvable update of the various elements (including attainment inventory, assurance of adequate monitoring and verification of continued attainment, and contingency provisions) of the initial EPA-approved Maintenance Plan for the 1997 8-hour ozone NAAQS. EPA also proposes to find that the Montgomery County Area, qualifies for the LMP option, and adequately demonstrates maintenance of the 1997 8-hour ozone NAAQS through the documentation of monitoring data showing maximum 1997 8-hour ozone levels well below the NAAQS and historically stable design values. EPA believes the Montgomery County Area's LMP, which retains all existing control measures in the SIP, is sufficient to provide for maintenance of the 1997 8-hour ozone NAAQS in Montgomery County over the second maintenance period (i.e., through 2025) and thereby satisfies the requirements for such a plan under CAA section 175A(b). EPA is therefore proposing to approve Tennessee's June 23, 2020, submission of the Montgomery County Area's LMP as a revision to the Tennessee SIP.

# V. Transportation Conformity

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<sup>&</sup>lt;sup>23</sup> See the Contingency Plan section of the LMP for further information regarding the contingency plan, including measures that Tennessee will consider for adoption if the trigger is activated.

Transportation conformity is required by section 176(c) of the CAA. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. See CAA 176(c)(1)(A) and (B). EPA's transportation conformity rule at 40 CFR part 93 subpart A requires that transportation plans, programs, and projects conform to SIPs and establishes the criteria and procedures for determining whether they conform. The conformity rule generally requires a demonstration that emissions from the Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP) are consistent with the motor vehicle emissions budget (MVEB) contained in the control strategy SIP revision or maintenance plan. See 40 CFR 93.101, 93.118, and 93.124. A MVEB is defined as "the portion of the total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS, for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions." See 40 CFR 93.101.

Under the conformity rule, LMP areas may demonstrate conformity without a regional emissions analysis. *See* 40 CFR 93.109(e). On September 22, 2005, EPA made a finding that the MVEBs for the first 12 years of the 1997 8-hour ozone maintenance plan for the Montgomery County Area were adequate for transportation conformity purposes. In a Federal Register notice dated September 22, 2005, EPA notified the public of that finding. *See* 70 FR 55559. These new MVEBs became effective November 21, 2005. After approval of this LMP or an adequacy finding for this LMP, there is no requirement to meet the budget test pursuant to the transportation conformity rule for the maintenance area. All actions that would require a transportation conformity determination for the Montgomery County Area under EPA's transportation conformity rule provisions are considered to have already satisfied the regional emissions analysis and "budget test" requirements in 40 CFR 93.118 as a result of EPA's adequacy finding for the LMP. *See* 69 FR 40004 (July 1, 2004).

However, because LMP areas are still maintenance areas, certain aspects of transportation conformity determinations still will be required for transportation plans, programs, and projects. Specifically, for such determinations, RTPs, TIPs and transportation projects still will have to demonstrate that they are fiscally constrained (40 CFR 93.108) and meet the criteria for consultation (40 CFR 93.105) and Transportation Control Measure implementation in the conformity rule provisions (40 CFR 93.113) as well as meet the hot-spot requirements for projects (40 CFR 93.116).<sup>24</sup> Additionally, conformity determinations for RTPs and TIPs must be determined no less frequently than every four years, and conformity of plan and TIP amendments and transportation projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104. In addition, in order for projects to be approved they must come from a currently conforming RTP and TIP. See 40 CFR 93.114 and 40 CFR 93.115.

#### VI. **Proposed Action**

Under sections 110(k) and 175A of the CAA and for the reasons set forth above, EPA is proposing to approve the Montgomery County Area LMP for the 1997 8-hour ozone NAAQS, submitted by TDEC on June 23, 2020, as a revision to the Tennessee SIP. EPA is proposing to approve the Montgomery County Area LMP because it includes an acceptable update of the various elements of the 1997 8-hour ozone NAAOS Maintenance Plan approved by EPA for the first 10-year period (including emissions inventory, assurance of adequate monitoring and verification of continued attainment, and contingency provisions), and retains the relevant provisions of the SIP.

EPA also finds that the Montgomery County Area qualifies for the LMP option and that, therefore, the Montgomery County Area's LMP adequately demonstrates maintenance of the

<sup>&</sup>lt;sup>24</sup> A conformity determination that meets other applicable criteria in Table 1 of paragraph (b) of this section (93.109(e)) is still required, including the hot-spot requirements for projects in CO, PM<sub>10</sub>, and fine particulate matter (PM<sub>2.5</sub>) areas.

1997 8-hour ozone NAAQS through documentation of monitoring data showing maximum 1997 8-hour ozone levels well below the NAAQS and continuation of existing control measures. EPA believes that the Montgomery County Area's 1997 8-Hour Ozone LMP is sufficient to provide for maintenance of the 1997 8-hour ozone NAAQS in Montgomery County over the second 10-year maintenance period, through 2025, and thereby satisfy the requirements for such a plan under CAA section 175A(b).

## VII. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. This action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental

relations, Nitrogen oxides, Ozone, Reporting and recordkeeping requirements, Volatile organic

compounds.

Authority: 42 U.S.C. 7401 et seq.

Dated: September 1, 2021.

John Blevins,

Acting Regional Administrator,

Region 4.

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